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		FAX TRANSM	IITTAL_	
TO:	_	nd Trademark Offic	e	Fax Number 703-872-9306
From:	Craig Fieschl	co		otal Pages: 74 including this page)
Date:	July 7, 2005		Time	Sent:
Res	pond To:	Jill M. Newman at	608-831-2100	(tel) / 608-831-2106 (fax)

MESSAGE

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PATENT

66054.002

Group Art Unit: 2853

Atty. Docket:

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No.:

09/888,940

Filing Date: June 25, 2001

Applicant(s): GRIBB et al.

Title:

DELAY LINE ANODES

PETITION UNDER 37 CFR §1.181(a)(1) TO WITHDRAW PREMATURE FINAL REJECTION (37 CFR §1.113(a); MPEP 706.07(c))

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GROUP DIRECTOR, GROUP 2853

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This petition is filed in the above-noted application to withdraw the finality of the May 16, 2005 Office Action.

As per MPEP 1002.02(c), it is understood that this Petition is to be decided by the Group Director of Group Art Unit 2853. If this understanding is incorrect, please forward to the Office of Petitions or the other responsible entity.

- Petition Fee (37 CFR §1.17(h)): No fee is required for this Petition. I.
- Timing of Petition (37 CFR §1.181(f)): This Petition is filed within two months of the 2. mailing date of the Final Office Action wherein the final rejection is set forth.
- Prior Request for Reconsideration (37 CFR §1.181(c)): The Applicant requested 3. reconsideration in a Response submitted to the Examiner (Lam Nguyen) on May 31, 2005, which included a draft version of this Petition. A copy of the Response is attached. On June 14, 2005,

I certify that this paper is being facsimile transmitted to the U.S. Patent and Trademark Office as follows: 703-872-9306 Signature Date Group Art Unit Facsimile No.

the Examiner issued an Advisory Action denying reconsideration. A copy of this Advisory Action is also attached. The undersigned attorney has also left voicemails for SPE Stephen Meier outlining the issues noted in this Petition, but to date no response from Mr. Meier has been received.

- 4. Statement of Facts (37 CFR §1.181(b)): The facts are as follows.
- a. The Office Action of January 26, 2005 set forth the following rejections:
 - a.(1) Claims 1-5, 7-8, and 10-11 under 35 USC §112(1) and (2)
 - a.(2) Claims 1, 3-7, 10, 12, 24, 26, 28, 39-44, and 46-47 under USC §103(a) in view of Friedman et al. ("Multilayer Anode with Crossed Serpentine Delay Lines for High Spatial Resolution Readout of Microchannel Plate Detectors") and U.S. Patent 3,581,091 to Meijer. Here, the USPTO argued (among other things) that FIG. 2 of Meijer illustrates and suggests adjustably respaceable anodes (pages 4-5 of January 26, 2005 Office Action).
 - a.(3) Claims 2, 25, 27, and 48-49 under USC §103(a) in view of Friedman et al. (Multilayer Anode with Crossed Serpentine Delay Lines for High Spatial Resolution Readout of Microchannel Plate Detectors"), U.S. Patent 3,581,091 to Meijer, and U.S. Patent 3,359,421 to Perez-Mendez et al.
 - b. The Response of March 9, 2005 set forth extensive arguments against the foregoing rejections without amending the claims. In particular, it was argued that the §103 rejections of claims 1, 3-7, 10, 12, 24, 26, 28, 39-44, and 46-47 (wherein claims 1, 24, and 39 are independent claims) were incorrect because:
 - b.(1) Regarding claims 1, 3, 6, 24, 26, 39, 42, 43, and 47, while the January 26, 2005 Office Action alleged that Meijer's "anodes" 2 and 5 were spaced to be adaptably adjustable, Meijer does not in fact show or state this. Rather, column 1 lines 16-22 and column 2 lines 24-37 of Meijer explicitly state that the illustrated anodes are spaced by a fixed distance equal to the diameter of the anodes. It was further noted that such spacing was necessary in Meijer for the anodes to be operable.

- Thus, Meijer does not in fact provide any motivation to modify Friedman to attain the claimed matter. See pages 15-16 of the March 9, 2005 Response.
- b.(2) Further regarding claims 1, 3, 6, 24, 26, 39, 42, 43, and 47, the primary reference *Friedman* starts with a pair of separate anodes, but then bonds the two anodes together at a fixed distance precisely to avoid variability in spacing. Thus, the secondary reference *Meijer* could not motivate an ordinary artisan to provide adjustable spacing between anodes because such a modification is contrary to the purposes of *Friedman*. See page 17 of the March 9, 2005 Response.
- b.(3) Regarding dependent claims 4-5 and 40-41, passages of *Friedman* and *Meijer* were cited to show that the two anodes discussed therein were not in fact identical or interchangeable, and thus the references did not disclose or suggest the arrangement claimed in claims 4-5 and 40-41. See page 17 of the March 9, 2005 Response.
- b.(4) Regarding dependent claims 10 and 44, passages of Friedman and Meijer were cited to show that the two anodes discussed therein were not made of flexible material, and thus the references did not disclose or suggest the arrangement claimed in claims 10 and 44. See page 17 of the March 9, 2005 Response.
- c. The Final Office Action of May 16, 2005 maintained the §103 rejections, reproducing them verbatim and also providing the following response to Applicant's arguments at page 6:
 - ... the arguments regarding to the 103 rejection have been found not persuasive.

First of all, the applicants argued that Meijer does not teach or suggest adjustable spacing between the delay line anodes. The examiner responses that, as broadly interpreted, the claims are understood as the anodes adaptably mounted in a space, wherein the length of the space between the anodes is adjustable. As clearly shown in FIG. 1, since there is no fix structure between the anodes, an anode is free to relatively move from the other. In other words, the space between the anodes can be adjusted.

As regarding to arguments relating to claims 4-5 and 40-41, the applicants argued that neither reference offers any disclosure or suggestion of the first and second delay line anodes are identical. In response, the examiner cites that Friedman in FIG. 1 discloses two identical delay lines arranged orthogonal on different planes.

As regarding to arguments relating to claims 10 and 44, the applicants argued that Friedman does not disclose the use of flex circuit material. However, the applicants did not show why Rt/duroid 6010 ceramic-filled PTFE dielectric is not a flex material. In addition, with the thickness disclosed in the cited prior art, the anode boards are believed to be bendable (flexible). Moreover, the bonding of the anodes on the bass plate only means that the whole structure is not bendable, but does not mean that the anode boards, themselves, are not bendable (flexible).

The final rejection is premature because the Applicant's arguments regarding claims 1, 3-6, 24, 26, 39-43, and 47 – items b.(1)-b.(3) above – are not addressed: the Applicant argued why Meijer does not in fact depict adjustably respaceable anodes (citing specific passages of Meijer which state this point), and why one would not be motivated to modify Friedman to use such an arrangement, but the Final Office Action is not seen to contain any response to these arguments. The Examiner simply repeated the arguments of the prior Office Action, but did not state why our arguments were regarded to be factually or legally incorrect. In order for us to effectively proceed with the application, we need to know why our arguments were found unpersuasive. MPEP 706.07 states that

While the rules no longer give to an applicant the right to "amend as often as the examiner presents new references or reasons for rejection," present practice does not sanction hasty and ill-considered final rejections. The applicant who is seeking to define his or her invention in claims that will give him or her the patent protection to which he or she is justly entitled should receive the cooperation of the examiner to that end, and not be prematurely cut off in the prosecution of his or her application. ... The examiner should never lose sight of the fact that in every case the applicant is entitled to a full and fair hearing, and that a clear issue between applicant and examiner should be developed, if possible, before appeal.

See also MPEP 707.07(f), Answer All Material Traversed ("Where the applicant traverses any rejection, the examiner should, if he or she repeats the rejection, take note of the applicant's argument and answer the substance of it"); also see Examiner Notes for PTO form paragraphs 7.37 and 7.38 (as reproduced in MPEP 707.07), which require that all relevant arguments by the Applicant be addressed, as well as MPEP 706.07 under "Statement of Grounds" ("the final rejection . . . also should include a rebuttal of any arguments raised in the applicant's reply").

The Final Office Action does not meet the requirements of the foregoing provisions. It simply states that FIG. 1 (presumably of *Meijer*?) shows adjustably respaceable anodes – but our March 9, 2005 Response set out several points showing that this is not in fact the case. Why are

these points disagreed with? Unless we know why, we cannot address the Examiner's concerns.

As per 37 CFR §1.181(b), any facts requiring proof are set out in the form of declarations or exhibits accompanying this Petition.

5. Action Requested (37 CFR §1.181(b)): It is requested that the Final Office Action and the final rejection therein be withdrawn, and that any maintained rejections be reissued in a new, nonfinal Office Action which fully addresses the Applicant's arguments. If this relief is denied, it is then requested that the action taken provide the Applicant with the "full and fair hearing" noted by MPEP 706.07.

In Closing

If any questions regarding this petition or the application arise, please contact the undersigned attorney. Telephone calls are welcomed and encouraged. The Commissioner is authorized to charge any fees or credit any overpayments relating to this application to deposit account number 18-2055.

ATTACHMENTS:

- January 26, 2005 Office Action
- March 9, 2005 Response
- May 16, 2005 Final Office Action
- May 31, 2005 Response to Final
- June 14, 2005 Advisory Action

For the Applicant,

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-001151701110	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
APPLICATION NO. 09/888,940	06/25/2001	Tye Travis Gribb	66054002	9270
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Madison, WI 53717-1914			DATE MAILED: 01/26/200	5

Please find below and/or attached an Office communication concerning this application or proceeding.

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A	pplication No.	Applicant(s)	
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The MAILING DATE of this communication appear	rs on the cover sheet w		dress -
eriod for Reply			
A SHORTENED STATUTORY PERIOD FOR REPLY IS THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.138(a after SIX (8) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply with 11 NO period for reply is specified above, the maximum statutory period will a Fallure to reply within the set or extended period for reply will, by statute, any reply received by the Office later than three months after the mailing day earned patent term adjustment. See 37 CFR 1.704(b).	b). In no event, however, may a thin the statutory minimum of this apply and will expire SIX (6) MO	reply be timely filed ty (30) days will be considered time TTHS from the mailing date of this of BANDONED (35 U.S.C. & 133).	iy. xommunicətları.
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1) Responsive to communication(s) filed on <u>08 Nov</u>	<u>ember 2004</u> .		
26) This at	ction is non-final.	_	
out since this application is in condition for allowance	e except for formal ma	tters, prosecution as to th	e merits is
closed in accordance with the practice under Ex	parte Quayle, 1935 C.	D. 11, 453 O.G. 213.	
Disposition of Claims	•		
4) Claim(s) 1-8 and 10-50 is/are pending in the app	olication.		
4a) Of the above claim(s) 9 is/are withdrawn from	n consideration.		
5)⊠ Claim(s) 13-23 and 30-38 is/are allowed.			
6) Claim(s) 1-8,10-12,24-28,39-44 and 46-49 is/are	e rejected.		
7\\ Claim(s) 29.45 and 50 is/are objected to.			
8) Claim(s) are subject to restriction and/or	election requirement.		
Application Papers			
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to ID The drawing(s) filed on 03 May 2004 is/are; a)	accepted or b) □ ob	jected to by the Examiner	•
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10) The drawing(s) filed on 03 May 2004 is/are: a) Applicant may not request that any objection to the d		ng(s) is objected to. See 37	CFR 1.121(d).
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DETAILED ACTION

Claim Objections

Claim 47 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 47 contains the limitation that has been cited in the parent claim 39.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claims 1-5, 7-8, 10-11 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. Elements or structure that support(s) the goal set by the preamble of the claimed invention are/is critical or essential to the practice of the invention, but not included in the claim(s). See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). In this case, the set goal of the claimed invention is an apparatus for detecting particles. However, the claims do not show how the first and second delay line anodes are used or structured to detect particles.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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2. Claims 1-5, 7-8, 10-11 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements. Elements or structure that support(s) the goal set by the preamble of the claimed invention are/is critical or essential to the practice of the invention, but not included in the claim(s). In this case, the set goal of the claimed invention is an apparatus for detecting particles. However, the claims do not show how the first and second delay line anodes are used or structured to detect particles.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 3. Claims 1, 3-7, 10, 12, 24, 26, 28, 39-44, 46-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Friedman et al. (Multilayer Anode with Crossed Serpentine Delay Lines for High Spatial Solution Readout of Microchannel Plate Detectors) (filed by the applicants) in view of Meijer (US 3581091).

Friedman et al. discloses a particle detector comprising first and second delay line anodes (FIG. 2, 4: the upper delay line and lower delay line anodes), wherein:

- a. the first and second delay line anodes each include an elongated signal line thereon (FIG. 4, Upper delay line and lower delay line);
- b. the first delay line anode has a first anode active area upon which particles impinge, the first anode active area containing at least a portion of the first delay line anode's elongated signal line thereon (FIG. 1);

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- c. the second delay line anode has a second anode active area which receives particles from the first anode active area (page 599, left column, first paragraph: The electrons travel through the plane of the upper delay line to reach the lower delay line);
- d. the second anode active area contains a length of the second delay line anode's elongated signal line, the length having a configuration and dimensions identical to the portion of the first delay line anode's elongated signal line resting within the first anode active area (Fig. 2) (Referring to claims 6, 39, 42).

Friedman et al. does not disclose wherein the first and second delay line anodes are adjustably mounted in spaced relation to have adaptable spacing therebetween (Referring to claims 1, 26, 39, 47), wherein no structure is interposed between the active areas of the first and second delay line anodes (Referring to claims 3, 24), and wherein at least one of the first and second anodes is defined by metallic foil layers laminated onto opposing sides of a thermoplastic film (Referring to claim 43).

Meijer discloses a particle detector having a first and second anodes, wherein no structure is interposed between the anodes (FIG. 2, element 2 and 5) so the space between the anodes is adaptably adjustable (column 1, line 15-25 and column 2, line 32-37: The distance between the two anodes 2.5 depends on the diameter of the anodes 2, 5), wherein the first and second anodes each includes an elongated signal line thereon (FIG. 2, elements, 3-4, 6-7); and wherein at least one of the first and second anodes is defined by metallic foil layers laminated onto opposing sides of a thermoplastic film (column 2, lines 24-32).

Therefore, it would have been obvious for one having ordinary skill in the art at the time the invention was made to modify the detector disclosed by Friedman et al. such as no structure

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is interposed between the anodes so the space between the anodes is adaptably adjustable as disclosed by Meijer. The motivation for doing so would have been to obtain a spectrometer which makes more accurate determination possible as taught by Meijer (column 1, lines 53-55).

Friedman et al. also discloses the following claimed invention:

Referring to claims 4-5, 40-41: wherein the first and second delay line anodes are identical and are interchangeable within the particle detector without substantial effect on detector performance (FIG. 1: Each delay line for X or Y direction so the delay lines are interchangable).

Referring to claims 7, 28: wherein the first and second delay line anodes each include a signal layer (FIG. 4: The upper delay line and lower delay line) and a ground layer (FIG. 4: The upper ground plane and lower ground plane) with a dielectric layer (FIG. 4: The dielectric layers are between the upper/lower delay line and the upper/lower ground plane) interposed therebetween, the signal layer having an elongated signal line defined thereon, and wherein the signal line of the first delay line anode is identical to the signal line of the-second delay line anode (FIG. 4: Both are made of Cu).

Referring to claims 10, 44: wherein at least one of the first and second delay line anodes is formed of flex circuit material (page 599, left column, second paragraph: Fabrication of the anode begins with standard photolithography of two, double-sided, copper-clad, RT/duroid 6010 ceramic-filled PTFE dielectric boards).

Referring to claims 12, 46: wherein the first and second delay line anodes include active areas whereupon particles impinge, with the active area of the second delay line anode receiving particles from the active area of the first delay line anode, parallel lengths of signal line, wherein

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several lengths extend at least partially outside of the anode's active area, and the lengths of signal line in the first delay line anode extend at a non-parallel angle with respect to the lengths of signal line in the second delay line anode (FIG. 1-2, 4: The upper delay line and the lower delay line are orthogonal).

Claims 2, 25, 27, 48-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over 4. Friedman et al. (Multilayer Anode with Crossed Serpentine Delay Lines for High Spatial Solution Readout of Microchannel Plate Detectors) (filed by the applicants) in view of Meijer (US 3581091), as applied to claims 1, 24, 39, and further in view of Mendez et al. (US 3359421).

Friedman et al., as modified, discloses the claimed invention as discussed above except wherein the first anode active area and second anode active area of the delay line anodes are space by vacuum or a gas.

Mendez et al. discloses an apparatus for detecting and locating the trajectories of charged particles (column 1, lines 10-15) having a plurality of anodes spaced apart (FIG. 1, elements 14, 16, 17), wherein the space is filled with a noble gas such as He, Ne (FIG. 1, element 13).

Therefore, it would have been obvious for one having ordinary skill in the art at the time the invention was made to modify the particle detector disclosed by Friedman et al., as modified, such as filling a gas into the space between the anodes as disclosed by Mendez et al. The motivation of doing so is to provide improved means for detecting and recording the charged particle tracks as taught by Mendez et al. (column 2, lines 64-66).

Allowable Subject Matter

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Claims 13-23, 30-38 are allowed and Claims 29, 45, and 50 are objected to as being 5. dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Referring to claims 13, 29, 30: The reasons for allowance of the claims were indicated in the previous office action.

Claim 50 is allowed because it contains the same allowable figure cited in the claim 13, 29, or 30.

Referring to claim 45: The primary reasons for the indication of the allowability of the claim is the inclusions therein, in combination as currently claimed, of the limitation that wherein at least one of the first and second delay line anodes is sufficiently flexible that it may be bent to adopt an angle of curvature of at least 45 without breaking is neither disclosed nor taught by the cited prior art of record, alone or in combination.

Claims 14-23 and 31-38 are allowed because they depend directly/indirectly on claim 13 or 30.

Response to Arguments

Applicant's arguments filed 11/08/2004 have been fully considered and persuasive as regarding to the third rejection of the previous office action. As a result, the third rejection has been withdrawn. However, the argument regarding to the other rejections have been found not persuasive. First of all, regarding to the first and second rejections, the applicants stated that the claims and specification fulfill the requirement of MPEP 2164.08(c). The examiner does not agree with the argument. Eventhough, the specification fully discloses the invention, the claims do not. As stated by MPEP 2174 that "If the specification discloses that a particular feature or

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element is critical or essential to the practice of the invention, failure to recite or include that particular feature or element in the claims may provide a basis for a rejection based on the ground that those claims are not supported by an enabling disclosure". Therefore, the 112 rejections are maintained.

Applicant's arguments with respect to the rejection based on the teaching of the prior art have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAM S NGUYEN whose telephone number is (571)272-2151. The examiner can normally be reached on 7:00AM - 3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, STEPHEN D MEIER can be reached on (571)272-2149. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LN

January 19, 2005

Harchi Pham

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03/09/03 14:11 FAX BB86312105 In the united states patent and trademark office Group Art Unic 2853 NEUYOL, Judy 66054.002 Secial No.: 09/883.940 Filing Date: June 25, 2001
Applicant(s): GRIEB et al. Any, Docket DELAY LINE ANODES RESPONSE TO 26 JANUARY 2005 OFFICE ACTION (37 CFR §1.111) Mail Stop Amendment Commissioner for Patents P.O Nox 1450 Alexandria, VA 22313-1450 In Response to the Office Action of January 16, 2005, seconsideration of the objections and/or rejections and further examination of the application are requested. estimate erappreciated as the U.S. Catest and Yi PAGE UNIT RCYO AT MARZAGE F17:07 PHA [Ession] Standard Time] " SVEUSPTO-EFICE-10" DNIS.NEWSOS" (SSID:6038312:05" CUICATION | Isan-54:99-00